AIPL SUPPLEMENTAL REPORT (07-10)

Estimated 2010 Genetic Base Changes for Goats - Production and Type Traits

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The base change for each trait is defined as the difference between the average predicted transmitting ability (**PTA**) of does born in 2005 and the average PTA of does born in 2000. Stepwise genetic bases allow predicted transmitting abilities (**PTA**'s) from new evaluations to be easily compared with previous evaluations except at base changes, when accumulated genetic gain is subtracted so that all animals are compared with a more recent cow population. A particular animal's PTA is supposed to decrease when the base is changed and remain fairly constant between base changes.

Genetic progress for yeild traits (2005-2000)

Trait	Alpine	LaMancha	Nubian	Oberhasli	Saanen	Toggenburg
Milk	69.3	35.1	28.2	18.1	20.1	14.1
Fat	2.1	0.8	1.0	0.1	0.7	0.7
Protein	1.8	0.8	0.9	0.4	0.4	0.5

Genetic progress for type traits (2005-2000)

Trait	All breeds
Final Score	0.03
Stature	0.36
Strength	0.08
Dairyness	0.15
Teat diameter	-0.16
Rear legs	-0.11
Rump angle	0.60
Rump width	-0.06
Fore udder attachment	-0.03
Rear udder height	-0.05
Rear udder arch	-0.10
Udder depth	0.02
Suspensory ligament	0.11
Teat placement	0.27

PTA calculation

A PTA from before the base change (PTA_{old}) can be converted to a PTA after the base change (PTA_{new}) by using the formula

$$PTA_{new} = (PTA_{old} - \text{base change}),$$

where the base change is the appropriate breed PTA progress in the table above.